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NOTES ON NORTH AMERICAN SHORE FLIES
OF THE SUBFAMILY PARYDRINAE
(DIPTERA: EPHYDRIDAE)

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The North American shore flies for the most part have received excellent taxonomic treatment through the revisions of Cresson (Trans. Amer. Ent. Soc. 68: 101-128, 1942; 70: 159-180, 1944; 72: 227-240, 1946; 74: 225-260, 1949) and Sturtevant and Wheeler (idem. 79: 151-257, 1954). Our poorest understanding is in the subfamily Parydrinae, and particularly the genus *Parydra* Stenhammar (reviewed as *Napaea* Robineau-Desvoidy by Sturtevant and Wheeler). The purpose of this paper is to discuss the correct generic affiliations of two species not studied by Sturtevant and Wheeler; *metallica* Cole, for which a new genus is erected, and *yukonensis* (Cresson), which is synonymized with the Holarctic *Eutaenionotum guttipennis* (Stenhammar); and to describe a second species in the subgenus *Callinapaea* Sturtevant and Wheeler.

Rhinonapaea, new genus

Head very short and broad; frons at level of ocellars measuring 1.5 times as wide as length from antenna bases to level of verticals; two pairs of very long diverging fronto-orbitals, subequal in length to the ocellars and inner and outer verticals. Face short, with very strong, noselike median hump, the nose broader and not so prominent between antenna bases, most prominent and sharper about midway between antennae and epistomal margin; clypeus very prominently exposed on anterior margin of mouth cavity; one pair of very strong facials, subequal in length to ocellars, plus several fine hairs posteriorly on cheeks; the latter broad and convex, measuring vertically about one-third of eye height. Antenna with third segment exceptionally large, slightly broader than long, with finely pubescent arista which is rather stout toward base.

Thorax only slightly convex above; no humerals, two pairs of strong notopleurals, one pair of strong supra-alars, one pair of strong intra-alars; four widely separated rows of sparse discal setulae comprising the acrostichal and dorsocentral series, mesonotum also with sparse setulae laterally. Scutellum only slightly convex; caudal margin bluntly rounded, without tubercles; two subequal pairs of marginal scutellars. Pleuron with one mesopleural, one sternopleural, bare of setulae except a few fine ones dorsally on mesopleuron. Legs normal; femora moderately slender, without armature; claws very slender and curved. Wing uniformly infuscated, without pale or dark maculation; anterior crossvein located directly behind tip of first vein; second vein straight and moderately long, slightly upcurved at tip, costal ratio (length of second section divided by length of third section) 3.7; third vein and distal section of fourth subparallel to wing margin; costa ending at tip of fourth vein; fourth vein index (length of apical section divided by length of preapical section) 1.25; fifth vein slightly bowed posteriorly toward tip of discal cell, last section incomplete, extending only halfway from junction with posterior crossvein to wing margin.

Abdomen markedly flattened above on proximal half, with rather sharp lateral margins, becoming distinctly convex above on fifth segment in male. Abdominal terga without coarse sculpturing, but uniformly micropunctate and metallic in appearance, with only sparse fine hairs; lengths of terga II-V in proportion of 13-16-17-17 in male, II-VI as 13-16-17-14-5 in female; fifth tergum of male rounded caudad in dorsal view; male with a pair of very large genital lamellae as long as fifth tergum, each plate twice as long as basal breadth, tapering to bluntly rounded anterior point with narrow polished lateral margin in ventral view, lamellae without hairs or spines.

Type-species: Parydra metallica Cole, by present designation, the only known species.

Notes: This genus is closest to the *Parydra* subgenus *Chaetoapnaea* Hendel. That subgenus is a somewhat heterogeneous assemblage of species having the face much more evenly convex than in *Rhinonapaea*, without noticeable nose or carina, the antennae much smaller, the frons usually longer with from one to three strong fronto-orbitals, the clypeus not so prominently exposed; the scutellum more convex and often with caudal tubercles; the wing with the anterior crossvein usually located much beyond the tip of the first vein, the second vein usually not nearly so long, often undulating, its apical portion very variable from straight to abruptly bent subapically with a short appendage at the bend, the wing usually with faint hyaline spots near the darkened posterior crossvein; the abdomen usually much broader and more convex, more oval in dorsal profile with the male genital lamellae much shorter and not nearly so prominent.

Rhinonapaea metallica (Cole), new combination

Parydra metallica Cole, 1921, Proc. California Acad. Sci., 4 (11): 176 (male; Pribilof Islands; Fig. head).—Malloch, 1923, N. Amer. Fauna, 46: 222 (Pribilof Islands; Fig. head).

Napaea (*Chaetoapnaea*) *metallica* (Cole); Cresson, 1949, Trans. Amer. Ent. Soc., 74: 234 (Pribilof Islands).

Napaea metallica (Cole); Sturtevant and Wheeler, 1954, Trans. Amer. Ent. Soc., 79: 220 (notes).

New Records: MANITOBA: Churchill, 15 June 1930, O. Bryant, 1 female (U.S. Nat. Mus.). NORTHWEST TERRITORY: Aklavik, 10 Aug. 1931, O. Bryant, 2 females (USNM). Eskimo Point, 29 June 1950, G. G. DiLabio, 1 male (Canadian Nat. Coll.). Kidluit Bay, Richards Is., 27 July 1948, J. R. Vockeroth, 1 male (CNC). Padley, 30 June 1950, R. A. Henniger, 1 female (CNC). Salmita Mines, 64°05'N, 111°15'W, 16 Aug. 1953, J. G. Chillcott, 1 female (CNC). Spence Bay, 23 June 1951, J. G. Chillcott, 1 female (CNC).

Genus *Eutaenionotum* Oldenberg

Eutaenionotum Oldenberg, 1923, Deutsch. Ent. Ztschr., 1923: 315
Type-species, *olivaceum* Oldenberg, monobasic.

Eutaeniotum, lapsus, Sturtevant and Wheeler, 1954, Trans. Amer. Ent. Soc., 79: 205.

Eutaenionotum guttipennis (Stenhammar)

Notiphila guttipennis Stenhammar, 1844, Handl. K. Svensk Vet. Akad., 1843: 212 (Lapland; male; described in Section 2 (*Telmatobia*) of *Notiphila*).

Pelina guttipennis (Stenhammar), Becker, 1896, Berlin Ent. Ztschr., 41: 199.—Becker, 1926, Fliegen Pal. Reg., 10: 62.

Eutaenionotum guttipennis (Stenhammar), Sturtevant and Wheeler, 1954, Trans. Amer. Ent. Soc. 79: 205 (New Hampshire; as *Eutaeniotum* sic!).

Napaea (*Chaetoapnaea*) *yukonensis* Cresson, 1949 (New Synonymy) Trans. Amer. Ent. Soc. 74: 234 (male; Alaska).

New Records: ALASKA: Golovin, 19 Aug. 1929, 1 female (U.S. Nat. Mus.). Mt. McKinley Nat. Park, 1931, F. W. Morand, 1 female (USNM). QUEBEC: Great Whale river, 5 Sept. 1949, J. R. Vockeroth, 1 male (Canadian Nat. Coll.). Hemmingford, 5 May 1950, J. B. Maltais, 1 female (CNC). SWEDEN: Abisko, Lapland, 15 June 1951, J. R. Vockeroth, 1 male, 1 female (CNC).

Notes: A close comparison of the descriptions of *guttipennis* by Stenhammar, Becker, and Sturtevant and Wheeler, with the type of *yukonensis* and with Lapland and North American specimens convinces

me of their synonymy. *E. guttipennis* is very easily recognized by the absence of fronto-orbital bristles, clypeus visible in profile view, head with velvety black lateral frontal vittae, wing with long second vein, the costal index 4.0, anterior crossvein placed directly under tip of first vein, and three faint, pale wing spots, these characters together differentiating the genus *Eutaenionotum* from *Hyadina* Haliday, *Parydra* Stenhammar, and *Pelina* Haliday. The only other known species of *Eutaenionotum* is the type-species *olivaceum* Oldenberg from Germany, which apparently differs mainly in coloration, with yellowish dusting on the olive-colored face, and mesonotum brownish olive green with yellowish vittae. In *guttipennis* the face is dark brown with faint grayish-white dusting and the mesonotum is brownish black with four grayish brown vittae. It is very likely that these color differences are of less than specific, if any, taxonomic importance.

Genus *Parydra*, Subgenus *Callinapaea* Sturtevant and Wheeler

Napaea, subgenus *Callinapaea* Sturtevant and Wheeler, 1954, Trans. Amer. Ent. Soc., 79: 220. Type-species, *Napaea aldrichi* Sturtevant and Wheeler, original designation.

***Parydra* (*Callinapaea*) *aldrichi* (Sturtevant and Wheeler),
new combination**

Napaea (*Callinapaea*) *aldrichi* Sturtevant and Wheeler, 1954, Trans. Amer. Ent. Soc., 79: 220 (male, female; California, Washington, Iowa).

New records: ALASKA: Matanuska, 5 June 1944, J. C. Chamberlain, 1 female (U.S. Nat. Mus.). ALBERTA: Elkwater, 49°42'N, 110°16'W, 29 May 1955, J. R. Vockeroth, 1 female (Canadian Nat. Coll.). CALIFORNIA: Forest Home, 25 May 1935, A. L. Melander, 1 female (USNM). IDAHO: Waha, 30 May 1924, A. L. Melander, 1 male (USNM). WASHINGTON: Lake Crescent, Fairholm, 26 July 1917, A. L. Melander, 1 male (USNM). Mt. Constitution, 17 May 1910, 1 female (USNM).

Notes: This species, which is the type of the subgenus *Callinapaea*, approaches in many characters the genus *Eutaenionotum*: the flat face, with faint median carina dorsally; the reduction of the fronto-orbitals to a weak posterior bristle and a row of tiny setae in front; one pair of strong intra-alars with no true dorsocentrals; the costa extending to fourth vein, anterior crossvein located directly behind tip of first vein, and the second vein long, the costal index 5.0. In *Callinapaea* the clypeus is entirely hidden in the oral cavity and in this species the wings are strikingly maculate with numerous definite brown spots in the cells. Not mentioned in the original description is a striking character of the male, a definite posteroventral comb of about 8 short, sharp, black spines on the mid-femur.

Parydra (Callinapaea) laurentiana, new species

A dull, grayish-brown species with grayish dusted face and subshining blackish abdomen; wing pale brown with two faint pale spots next to posterior crossvein.

Male: Wing 2.23 mm long. Frons dull brown pollinose, ocellar triangle blackish; face, cheeks, and posterior orbits dark gray with gray pollen; antennae and palpi brownish black. One pair of strong facials, as long as arista, and behind each a row of 2-3 minute hairs along facial groove; one weak hair on each cheek; one pair of moderately strong, diverging fronto-orbitals, no anterior setae evident; ocellars, inner and outer verticals strong.

Thorax brownish with heavy grayish-brown pollen, mesonotum with a pair of broad, submedian, longitudinal, dark-brown vittae; scutellum with flat disc, gray on flat portion, brown on sides. No humerals; two notopleurals, the anterior one only moderately strong; one pair of strong intra-alars, a pair of strong supra-alars; acrostichal setae extending anteriorly in two definite rows between the intra-alars, setae scattered sparsely laterad of dorsocentral series; two pairs of scutellars, the anterior pair half as long as apical pair.

Legs brownish black, without strong setae; no posteroventral armature on mid-femur. Wings pale brown infuscated, the veins darker brown; two very faint, paler spots, one on each side of posterior crossvein. Anterior crossvein located directly behind end of first vein; second vein long, costal index 5.0; fourth vein index 1.4. Halteres yellowish.

Abdomen brownish black, shining in lateral view, dull brown anteriorly in dorsal view, especially on second tergum; fourth tergum slightly longer than third, fifth shorter than fourth, triangular in dorsal profile; genitalia hidden.

Types: Holotype male, St. Louis, Quebec, 15 Aug. 1918, J. Ouellet, deposited in Canadian National Collection, Ottawa. Paratype, 1 male, same data, in U.S. National Museum.

Notes: This species is a typical *Callinapaea* structurally, but is readily distinguished from *aldrichi*, the only other known species of the subgenus, by its faintly marked wings, more typical of other *Parydra* or of *Eutaenionotum*.